



PATENT

Atty. Docket No. YOR920000655US2 (8728-446 DIV)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S): Alessandro C. Callegari et al.

SERIAL NO.: 10/606,523

FILED: June 26, 2003

DATED: September 23, 2003

FOR: IMPROVING STABILITY OF ION BEAM GENERATED
ALIGNMENT LAYERS BY SURFACE MODIFICATION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to Applicant(s) duty of disclosure, the information listed in the attached form PTO-1449 is brought to the attention of the Examiner. Copies of the listed items are enclosed.

The citation of the listed items is not a representation that they constitute a complete or exhaustive listing of the relevant art or that the references are prior art.

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postpaid in an envelope addressed to the: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 2313-1450 on September 23, 2003.

Dated: September 23, 2003


Nathaniel T. Wallace

The items listed are submitted in good faith, but are not intended to substitute for the Examiner's search. It is hoped, however, that in addition to apprising the Examiner of these particular items, they will assist in identifying fields of search and in making as full and complete a search as possible.

The filing of this information disclosure statement is not an admission that the information cited herein is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

- ☐ This information disclosure statement is being filed within three (3) months of the filing date of this application.
- ☐ This information disclosure statement is being filed within three (3) months of the date of entry of the national stage as set forth in 37 C.F.R. §1.491 in an international application.
- ☒ To the best of Applicant(s) knowledge, this information disclosure statement is being filed before the date of mailing of a first Office Action on the merits in connection with this case.
- ☐ Statement under 37 C.F.R. § 1.97(e):
I hereby state that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than 3 months prior to the filing of this statement.
- ☐ Enclosed herewith is a petition under 37 C.F.R. §1.97(d)(ii).
 - ☐ Enclosed by check is the petition fee of \$130.00. 37 C.F.R. §1.17(i)(1))
 - ☐ Please charge the \$130.00 petition fee to Deposit Account No. 50-0510/IBM.

- ☐ Enclosed by check is the \$180.00 fee required by 37 C.F.R. §1.17(p).
- ☐ Please charge the \$180.00 fee required by 37 C.F.R. §1.17(p) to Deposit Account No. 50-0510/IBM.
- ☒ Please charge any deficiency as well as any other fee(s) which may become due under 37 C.F.R. §1.16 and/or §1.17 at any time during the pendency of this application, or credit any overpayment of such fee(s) to Deposit Account 50-0510/IBM. Also, in the event any extensions of time for responding and/or a petition under 37 C.F.R. §1.17(i)(i) are required for the pending application(s), please treat this paper as a petition to extend the time and/or enter this Information Disclosure Statement as required and charge Deposit Account No. 50-0510/IBM therefor. TWO (2) COPIES OF THIS SHEET ARE ENCLOSED.

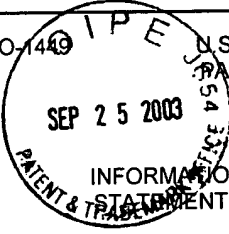
The claims of the application as now presented are believed to patentably distinguish over the prior art and to be in condition for allowance. Early and favorable consideration of the case is respectfully requested.

Respectfully submitted,



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Form PTO-1449  INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. YOR920000655US2 (8728-446 DIV)	SERIAL NO. 10/606,523
	APPLICANT Alessandro C. Callegari et al.		
	FILING DATE June 26, 2003	GROUP ART UNIT	

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		5,030,322	7/9/91	Shimada et al.	156	655	8/17/90
		5,710,608	1/20/98	Nakabayashi et al.	349	125	12/27/95
		5,770,826	6/23/98	Chaudhari et al.	204	157.15	5/10/96
		6,020,946	2/1/00	Callegari et al.	349	124	2/23/98
		6,061,114	5/9/00	Callegari et al.	349	125	2/23/98
		6,061,115	5/9/00	Samant et al.	349	129	11/3/98
		6,331,381	12/18/01	Chaudhari et al.	430	320	4/14/00
		6,485,614	11/26/02	Katoh et al.	204	157.15	11/30/00

FOREIGN PATENT DOCUMENTS


		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

			Tschersich, K.G., et al., <u>Formation of an Atomic Hydrogen Beam by a Hot Capillary</u> , Journal of Applied Physics, Vol. 84, No. 8, 10/15/98, pp. 4065-4070.					
			Harvey, K.C., et al., <u>Semiconductor Detector for the Selective Detection of Atomic Hydrogen</u> , American Institute of Physics, pp. 1117-1120.					
EXAMINER				DATE CONSIDERED				

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

(Form PTO-1449 [6-4])

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FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

			IBM Disclosure Bulletin, <u>Ion Bombardment of Polyimide for the Alignment of Liquid Crystals</u> , New York, Vol. 23, No. 4B, 9/1/91, pp. 80-82.
			Japanese Abstract No. XP-002224303, 2/28/92.
			U.S. Patent Application Publication No. 2002/0001057, Publication Date Jan. 3, 2002, <u>Method and Apparatus for Making a Crystal Alignment Layer</u>
			U.S. Patent Application Publication No. 2001/0025826, Publication Date Oct. 4, 2001, <u>Dense-Plasma Etching of INP-Based Materials Using Chlorine and Nitrogen</u>
			U.S. Patent Application Publication No. 2001/0041380, Publication Date Nov. 15, 2001, <u>Method for Forming a Multi-Domain Alignment Layer for a Liquid Crystal Display Device</u> .

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